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ABSTRACT

This Personalized Activity Kit deals with one aspect of preparation for group process, that of orienting members and obtaining consensus on basic issues prior to convening the group. The participants will learn the delphi technique and use it in a hypothetical situation. The delphi technique can facilitate the working of a group by familiarizing group members with the expressed views of other members and by resolving certain basic issues or questions prior to the actual meeting of the group. Activities, exercises, and facilitator guidelines are included in appendixes. (Author/IRT)

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ED141908

A SCHOOL IMPROVEMENT - ACCOUNTABILITY PROCESS KIT

PAK #1.4 - USING THE DELPHI TECHNIQUE TO REACH AGREEMENT

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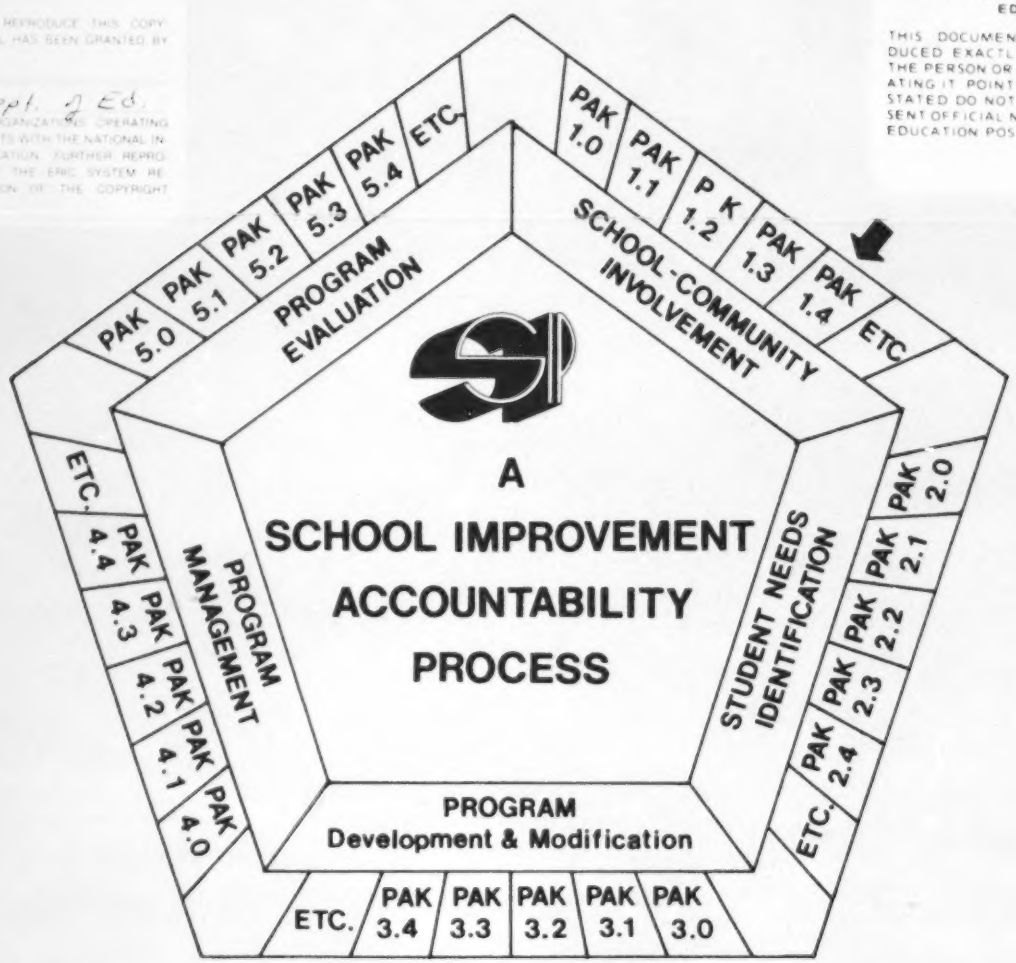

Personalized Activity Kit (PAK) for use as:

- Individualized Study Guide
- Small Group Study Guide
- Workshop Facilitator's Guide

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May 1976

A SCHOOL IMPROVEMENT - ACCOUNTABILITY PROCESS KIT

PAK #1.4 - USING THE DELPHI TECHNIQUE TO REACH AGREEMENT

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May 1976

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DIRECTIONS FOR THE USE OF THE PAK

Each PAK is designed to be used in three alternative ways: 1) an individual user can work through the packet on his own; 2) a small group may work cooperatively; or, 3) a group of participants may be involved in a workshop situation under the leadership of a facilitator. Experience indicates that the latter is the most desirable situation. While an individual may work through the materials on his own, he misses those shared learnings which come as learners interact in a group situation.

PLEASE NOTE

Because this PAK will be used by many people in your district, please mark only the worksheets supplied by your instructor. Do not mark the pages of this PAK. Sample transparencies and worksheets (for duplication) are included in Appendices A and B.

If you are using PAK materials in a group workshop situation, consult Appendix A for detailed instructions. The diagram on the cover page and diagrams for Appendix A may be used to make overhead transparencies.

If you are working through the PAK individually, follow the general directions listed below:

- Read content of the PAK.
- Refer to Appendix A, page 2, for additional instructions.
- Do the exercises on worksheets copied from Appendix B.
- Read the bibliography (when included).

THE DELPHI TECHNIQUE

Purpose

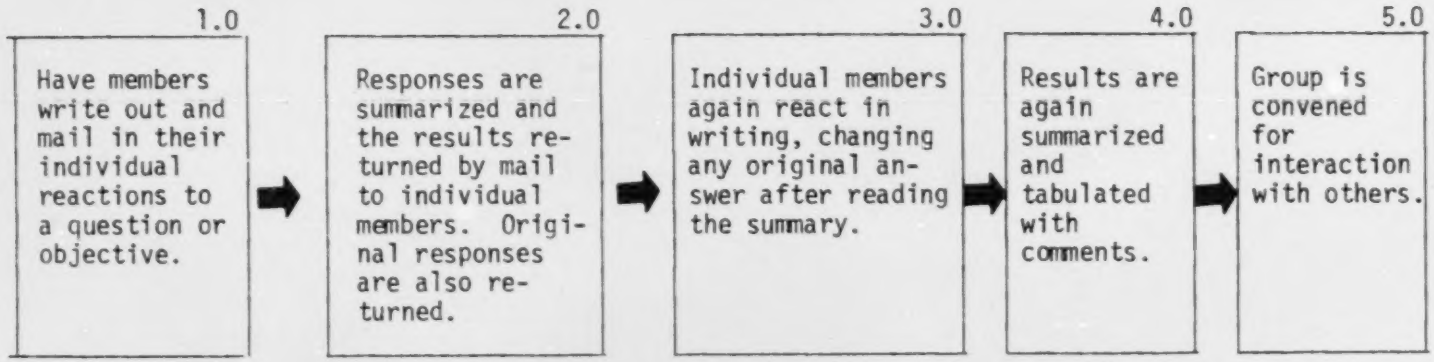
This PAK deals with one aspect of preparation for group process, that of pre-orientation and obtaining consensus on basic issues prior to convening a group. The participants will learn the Delphi Technique and use it in a hypothetical situation.

Prior to Convening a Group

Group process is often an excellent method for examining various issues, making decisions and solving problems. However, large amounts of time can be wasted unless prior planning helps the group to spend its time effectively. Using the average amount of time spent by the participants multiplied by the number of participants provides an estimate of the number of man-hours or man-days involved in group work. For example, if five participants are involved in one eight-hour conference, the time spent is the equivalent of forty man-hours or roughly the work of one person for one week's time. The point is simply that all possible preliminary preparations should be made prior to a group meeting to facilitate the working of the group. One such preparation involves the use of the Delphi Technique.

The Delphi Technique collects opinions from a number of persons in scattered locations without bringing a formal group together. The Delphi Technique is suggested not as an alternative to group process, but as a supplement to be considered for making certain basic decisions prior to convening a group. The basic plan for use of the technique is shown in the diagram on the following page. For steps #2 and #4, one person must take responsibility and may need clerical assistance.

FIGURE 1: DIAGRAM OF DELPHI TECHNIQUE


1.0
Have members write out and mail in their individual reactions to a question or objective.
2.0
Responses are summarized and the results returned by mail to individual members. Original responses are also returned.
3.0
Individual members again react in writing, changing any original answer after reading the summary.
4.0
Results are again summarized and tabulated with comments.
5.0
Group is convened for interaction with others.

Step 1.

Ask members to write out and mail in their individual reactions to a question or objective. Questions should provide for open-ended response which allows the participant to react to the question in some depth. The number of questions should be limited (no more than 3 - 5) to avoid becoming too time-consuming. To be manageable, one should limit the number of persons participating. More than forty people makes step 2 very time-consuming and difficult.

Step 2.

Responses are summarized and the results returned by mail to each participant. Original responses are also returned. Whenever possible it is useful to combine statements in a form that indicates the number of similar opinions. For example, "three of the five members cited programmed learning as an anticipated trend in education". It is possible to expand on opinions expressed and to quote portions of the responses given. In particular, elements of consensus are emphasized.

Step 3.

Individuals read the summary statement. Each member is then asked to re-examine his original position and make any changes he feels are necessary in light of others' opinions.

Step 4.

Results are summarized and tabulated with comments from the members. Particular elements of consensus are noted, as are areas where further explanation or discussion is needed. Steps 1 - 4 may be repeated several times. It is time to stop the cycle when it becomes obvious that the group is no longer moving toward increased agreement.

Step 5.

The group is convened for interaction with others involved. Certain areas of consensus have been identified. Certain opposing points of view may have been modified or at least clarified. The meeting agenda can now be built around resolution of major problems where consensus has not been reached.

For maximum effectiveness, adequate time must be allowed prior to convening the group. For a group located in different offices in a single building, it is conceivable that steps 1 - 4 could be accomplished in less than a week. Where the material must travel by mail, a month or more may be necessary.

A number of uses for this technique have been devised. At times it may be impossible to call a group together, and the Delphi Technique repre-

sents one method of reaching consensus among those concerned. Other possible uses are: depicting the future; identifying possible areas of concern; and describing possible solutions. In any case the technique relies upon prompt and careful responses from the participants.

PAK #1.4 EXERCISES

Directions for Participant Working Alone

Turn to Appendix A and read through the facilitator's guide. Look at the diagrams.

Next, scan the exercise sheets in Appendix B.

Now go back to the guide and work through the exercises. Please do not write on the exercise sheets in this PAK.

Directions for Participants Working in Groups

Turn to Appendix A and follow the directions. Get extra exercise sheets from your facilitator.

SUMMARY - PAK #1.4

The Delphi Technique is recommended to facilitate the workings of a group through (1) a familiarization of group members with the expressed views of other members, and (2) the resolution of certain basic issues or questions prior to the actual convening of the group. Specifically, the following considerations were emphasized:

1. The need for maximum effective use of the time of persons in a group effort.

2. The rationale for pre-conference work to facilitate group process.

3. There are three general phases of the Delphi Technique: responding to a questionnaire; summarizing the input from each participant; and, building an agenda.

SELECTED REFERENCES FOR FURTHER STUDY

1. Adelson, M. M., C. Carey Akin and Olaf Helmer. "Planning Education for the Future: Comments on a Pilot Study." American Behavioral Scientist. 10: March 1967, entire issue.

2. Fox, A. M. and W. K. Brookshire. "Defining Effective College Teaching: Delphi Technique," Journal of Experimental Education, 40: 37-40, Winter, 1971.

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6. Hirsch, Werner Z. and Sidney Sonenblum, Selecting Regional Information for Government Planning and Decision Making. New York: Praeger Publishers, 1970. pp. 92-94.

7. Judd, R. C. "Forecasting to Consensus Gathering: Delphi Grows Up to College Needs: a Bibliography", College and University Business, 53: 35-87, July, 1972.

8. Mitchell, Bruce. The Delphi Technique in Research and Teaching. Waterloo, Ontario: Department of Geography, University of Waterloo, 1971.

9. Winstead, P. C. and E. N. Hobson. "Institutional Goals: Where to Go from Here? Using the Delphi Technique", Journal of Higher Education, 42: 669-770, November, 1971.

APPENDIX A

FACILITATOR'S GUIDE FOR GROUPS

Each PAK has been organized around a fundamental and widely recognized generalization of how people learn. Learning occurs more efficiently when an overview is presented first. Succeeding learning experiences then take the person deeper into each concept adding more specific details. There may be several levels of exposure until real expertise is developed.

Workshop Specifications

I.	Time Required:	Two hours
II.	Facilities:	One room for each 24 participants. Participants to be seated at tables (maximum of six per table). Rooms should provide adequate accoustics and physical comfort suitable for a workshop session.
III.	Equipment & Material Needs:	One overhead projector and viewing screen per room
		Power extension cord (1 per room)
		Transparency sheets
		Grease pencils
		Butcher paper
		Masking tape
		Chalkboard, chalk, eraser
		Name tags (if necessary)

Workshop Activities for PAK #1.4

The following sequence of activities is suggested and may be modified at your discretion.

1.	10 min.	Have participants read the PAK materials beginning on page 1, and ending with page headed "Exercises." Share questions and reactions.
2.	15 min.	Divide into small groups. Designate a leader and a recorder for each group. Ask each participant to complete Exercise #1 working alone. Do not discuss exercise at this point.
3.	10 min.	Hand in Exercise #1 to group leaders and take a 10 minute break. During the break, group leaders should compile and summarize notes for use on the chalkboard or newsprint. Make notes in a format similar to Exercise Sheet #1. The recorder should fill out Worksheet #2.
4.	30 min.	Following the break, participants meet in small groups to discuss the problem in light of their compiled responses. Point out that this exercise leaves out steps 3 and 4 of the Delphi Technique. Emphasize that for actual use of the Delphi Technique, these steps are recommended. Have the participant complete Worksheet #3 as a group.
5.	15 min.	Have the recorder report his group's answers to the total group.
6.	5 min.	In small groups, brainstorm a list of possible uses of this Technique in other situations.
7.	10 min.	Have recorders report to total group.
8.	5 min.	In small groups, brainstorm ways to improve the pre-orientation process.
9.	10 min.	Have recorders report to total group.
10.	10 min.	Call attention to the Summary. Remind participants to complete the PAK critique form and turn it in.

NOTE: As quickly as possible, review the critique forms for feedback information that may be helpful during other workshops.

Total Time: Approximately 2 hours.

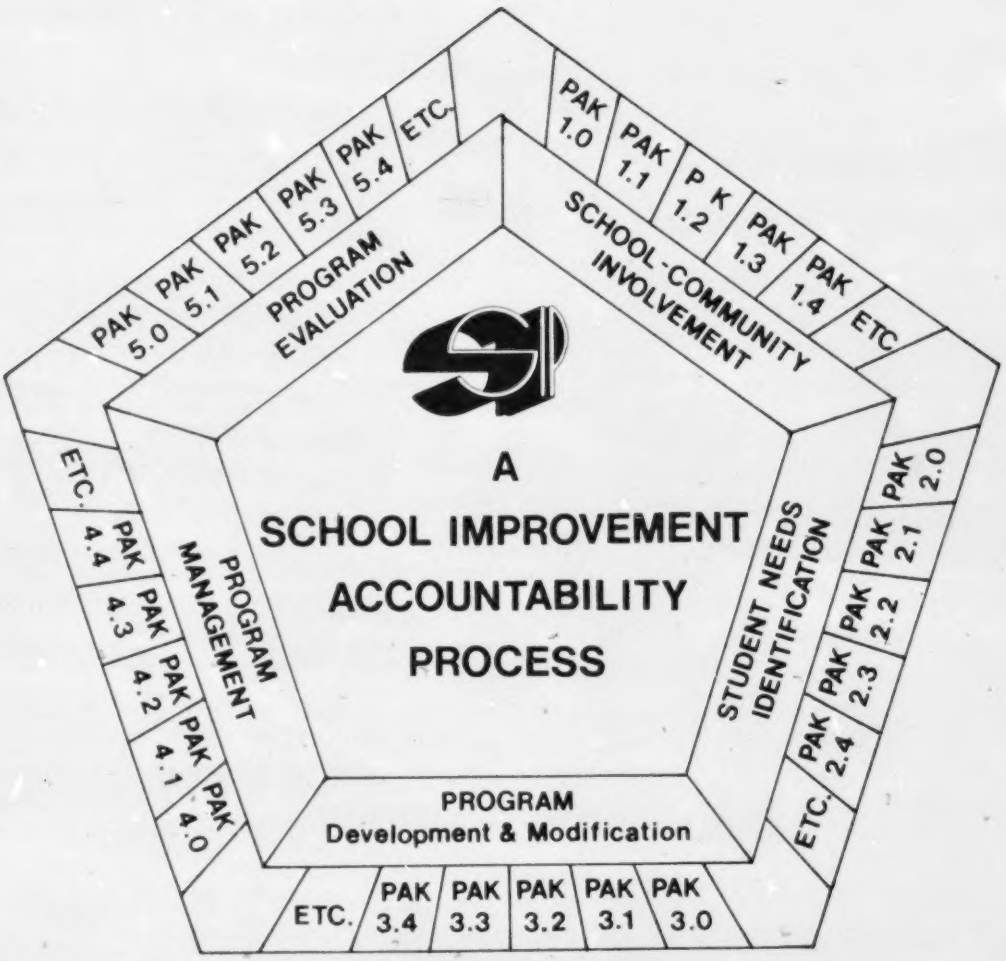
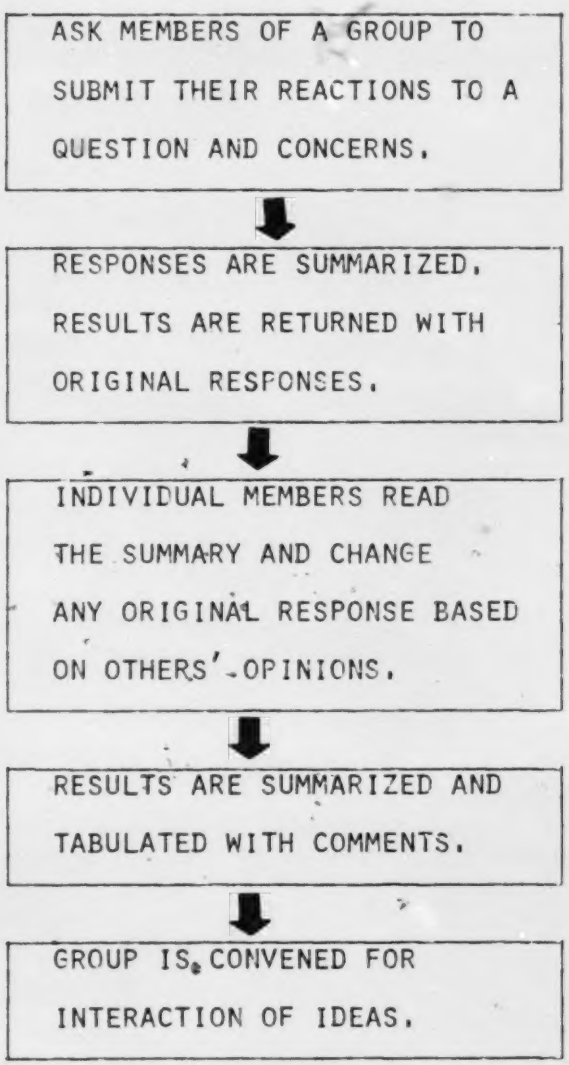

PAK 1.0
PAK 1.1
P K 1.2
PAK 1.3
PAK 1.4
ETC.
SCHOOL-COMMUNITY INVOLVEMENT
PAK 2.0
PAK 2.1
PAK 2.2
PAK 2.3
PAK 2.4
ETC.
STUDENT NEEDS IDENTIFICATION
PAK 3.0
PAK 3.1
PAK 3.2
PAK 3.3
PAK 3.4
ETC.
PROGRAM Development & Modification
PAK 4.0
PAK 4.1
PAK 4.2
PAK 4.3
PAK 4.4
ETC.
PROGRAM MANAGEMENT
PAK 5.0
PAK 5.1
PAK 5.2
PAK 5.3
PAK 5.4
ETC.
PROGRAM EVALUATION
A
SCHOOL IMPROVEMENT
ACCOUNTABILITY
PROCESS

FIGURE 1:
DIAGRAM OF THE DELPHI TECHNIQUE


ASK MEMBERS OF A GROUP TO SUBMIT THEIR REACTIONS TO A QUESTION AND CONCERNS.
RESPONSES ARE SUMMARIZED. RESULTS ARE RETURNED WITH ORIGINAL RESPONSES.
INDIVIDUAL MEMBERS READ THE SUMMARY AND CHANGE ANY ORIGINAL RESPONSE BASED ON OTHERS' OPINIONS.
RESULTS ARE SUMMARIZED AND TABULATED WITH COMMENTS.
GROUP IS CONVENED FOR INTERACTION OF IDEAS.

PROCESSING FEEDBACK FROM PARTICIPANTS

1. LOOK FOR AREAS OF CONSENSUS OR GENERAL AGREEMENT. A WELL-PREPARED QUESTIONNAIRE HELPS.

2. TABULATE THE NUMBER OF ANSWERS "FOR" AND "AGAINST" A GIVEN QUESTION.

3. WRITE DOWN COMMENTS THAT ADD INSIGHT TOWARD RESOLVING THE QUESTION, EITHER "FOR" OR "AGAINST."

Appendix B

PAK #1.4 Exercise #1

Dear _____:

I am attempting to assess the ideas and feelings of a number of people concerning the principal's role in settling disputes or controversies among staff members. Please indicate your opinion regarding each of the following:

1. Do you feel that tne principal has an obligation to settle disagreements among staff members?

   _____

   _____

2. Which of the following areas do you believe a school principal should be or should not be involved in resolving?

   a. Policy questions _____

   _____

   b. Ethical considerations: _____

   _____

   c. Scheduling or class load _____

   _____

   d. Personality conflicts _____

   _____

Thank you for your response. Responses will be compiled and returned for your reaction and comments in the near future.

Sincerely,

Appendix B

PAK #1.4 Exercise #2

The purpose of this exercise is to prepare you to handle the data generated by the Delphi Technique, phase 1.

From the returned questionnaires, answer the following questions:

1. There is/is not divergence of opinion as to whether the principal has an obligation to settle disputes or controversies among staff members.

   Number affirmative _____ Number negative _____

   Comments made (summarized):

   1.

   2.

   3.

   4.

   5.

2. For each of the areas in question, cite the number in favor of a principal's involvement, and the number opposed. Include participant comments where appropriate.

   Policy questions: Number affirmative _____ Number negative _____

   1.

   2.

   3.

   4.

   5.

Ethical consideration: Number affirmative _____ Number negative _____

1.

2.

3.

4.

5.

Scheduling, or class load — Number affirmative ____ Number negative ___

1.

2.

3.

4.

5.

Personality conflicts — Number affirmative ___ Number negative ___

1.

2.

3.

4.

5.

PAK #1.4 Exercise #3

To be completed prior to group discussion.

1. In view of the ideas expressed by others in the group, which of your original opinions would you change or revise at this point?

   a.

   b.

   c.

2. It should be evident from the tabulation which points have general agreement and which do not.

   a. Note points of agreement among the group.

   b. Note points of disagreement.

Now the group should meet together and discuss the building of an agenda to discuss the question. Points of agreement can be covered quickly and points of disagreement will take more time for clarification.

1. In what order would your group deal with the topics?

   a.
   b.
   c.
   d.
   e.

2. Are there some topics which need not be discussed at all? Which ones?

PAK # _____
(Please fill in #)

PAK CRITIQUE FORM

Please give your assessment and comments on the following:

PROGRAM ELEMENT	OUT-STANDING	VERY GOOD	FAIR	POOR	VERY POOR	COMMENTS
1. The quality & relevance of the subject matter.						
2. The appropriateness and usefulness of the instructional materials.						
3. The timing or sequencing of the various items presented.						
4. The directing and assistance given on the exercise.						

Other comments or suggestions for improving this PAK:

If this PAK was used as part of a WORKSHOP training session, then please also complete the following:

5. The deployment, grouping or planned interaction of the participants.						
6. The productivity and/or usefulness of the individual work session(s).						
7. The comments or assistance given to you on your selected problem.						